

Investigating Factors Facilitating Knowledge Management in Crisis Management Organization

Ali Bagherifar

Department of Management, Ahvaz Branch, Islamic Azad University Ahvaz, Iran

Abstract: Knowledge Management is Introduced as Approach Based on Which an Organization Identifies, Creates, Achieves, and Applies Knowledge, in Order to improve and Promote Productivity in the Organization. Nowadays, the Role and Significance of Knowledge Management is More and More Evident, and its Successful Implementation Can Have a Great Impact on Increasing Efficiency and Effectiveness of the Organization, Thus Identifying Factors Which Facilitate the Implementation of Knowledge Management and Also Applying These Factors Can be as a Map and Guide to Better Managing it. In This Study, the Factors Facilitating Knowledge Management in Iran's Crisis Management Organization and its Subordinate Offices Have Been Identified and Ranked By using the Variables of Information Technology (IT), Strategy, Structure and Culture. For Data Analysis, Pearson's Correlation Test, Freedman's Correlation Test, and Factor Analysis are Used. Based on the Results From the Respondents' Point of View, Among Factors Facilitating Knowledge Management, IT and Organizational Culture are Significant For Facilitating Knowledge Management and There is no Significance in Strategy and Structure Factors as Effective Factors in Facilitating Knowledge Management. Among Four Factors Studied, the Organizational Culture is the Most Important Affecting Knowledge Management, and the Strategy Factor Has the Least Effect on Facilitating Knowledge Management.

[Ali Bagherifar. **Investigating Factors Facilitating Knowledge Management in Crisis Management Organization** *N Y Sci J* 2013;6(2):56-61]. (ISSN: 1554-0200). <http://www.sciencepub.net/newyork>. 10

Keywords: Facilitating Factors, IT (Information Technology), Knowledge Management, Organizational Structure, Organizational Culture.

***INTRODUCTION**

Nowadays, Managers Consider Knowledge as an Asset. In Today's Complex World, Organizational Knowledge is Rapidly Becoming the Main Competitive Advantage of the Organizations. Organizational Knowledge in the Contemporary Rapid World is a Good Opportunity for Organizations That Know it Well and Manage it, Yet it is a Serious Threat to Organizations That Pay Little Attention to the Environmental Changes. Knowledge Management is a Process Which Helps Organizations in Finding, Selecting, Organizing, Dissiminating, and Transferring Information For Activities Such as Problem Solving, Dynamic Learning, Strategic Planning, and Making Decisions. Paying Attention to Knowledge Management and Supporting it Creates a Desirable Condition For any Organization to Not Only Have a Continuous Life in the Complex Competitive Environment, But Also to Win the Ball Ahead of Others and Be a Leader in Different Fields of Activity. Since Knowledge Management is a Main Factor in Achieving Knowledge-Based Development, if Knowledge is Not Managed in a

***INFORMATION TECHNOLOGY (IT):**

It as a Powerful, Effective, and Efficient Tool Acts in All Aspects of Knowledge Management Such as Capturing, Sharing, and Applying. Technologies Such as Associated Database Management System, Document Management System, Intranet, decision Support Systems, email, Search engines, Data Mining, Data Storing, ETC Can Have a Major Role in Facilitating Knowledge

Proper Way, and Individual Knowledge is Not Changed into Collective Knowledge, we Can Not Consider Knowledge as a Development Factor. So, the Present Study Has Two Objectives are Respectively as Follows: Identifying Factors Facilitating Knowledge Management, and Prioritizing and Ranking the Factors Facilitating Knowledge Management.

***CONCEPTS of Knowledge MANAGEMENT:** According to Snowden Theory (2000), Knowledge management is Defined as Identifying, Optimizing and Managing the Intellectual Capitals. This Knowledge Can Be Provided to Individuals in an Explicit Form Existing in Human Artifacts or Tacit Knowledge. WIIG(1994) Defines Knowledge Management as Follows: Knowledge Management Includes Activities to Get an Overview of Dealing With and Taking Advantage of the Areas That Need Management Attention, and Identifying Outstanding Alternatives, Suggesting Methods For Dealing With Them and Directing Some Activities to Achieve the Dealing With Them and Directing Some Activities to Achieve the Desirable Results.

management; However, It only Plays a Supporting Role in Knowledge Management. IT Helps People to Find Their Desired Information, However Only the Individuals Themselves Can Determine Whether This Information Suits Their Needs or Not (Sarlak ET al, 1399). Wang Chi Lu ET al (2008) Believe That Some Technologies Used in Knowledge management Include Data Mining Tool and Data Store, Organization Intranets, Email, Web

Applications, ETC .in Organizations, Prior to Data and Knowledge Storage in Database, They Should be Classified and Corrected. Databases Include a Combination of External and Internal Knowledge of the Organization (Wang, 2008). IT Through Providing an Online Communication Environment,
***Organizational Culture**

According to HAWKZINSKI and Bouchanan's Definition (Which is One of the Most Comprehensive Definitions about Organizational Culture, Organizational Culture is a Relatively Uniform Set of Values and Beliefs, Customs, Traditions, and Sustainable Practices that is Transferred by the Organization Members (Hawkzinski Et al ,2001). According to Schreyogg, Organizational Culture is the result of learning Process That Will be left to New Members of the organization in Socialization. Organizational Culture is One of the Main Components of the Organization Success in Vapid Organizational Learning (Chen, 1993) and Implementing Knowledge Management System (Dovenport, 1998) That Has a Direct on Knowledge Management Components, Especially on Knowledge Sharing (AKHAVAN, 1389: P 24). Some Researchers Have Considered Changing Organizational Culture to Strengthen Knowledge Sharing as One of the Key Elements of Successful Knowledge Management. Culture Change is Considered Both as One of the Requirements of Knowledge Management and as One of Its Results and Effects (HASSAN ZADEH , 1388). Organizational Culture is Considered as a Resource Facilitating Knowledge management Process (Creating, Storing, Transferring , and Applying Knowledge). Therefore Top Leaders and Managers Should be Able to Management Objective(SEYED NAGHAVI Et al , 1387).

***Knowledge management Models**

Some Knowledge Management Models are : 1_ Bukowitz and Williams Management Implementation Cycle (1999). Bukowitz and Williams Have Divided Knowledge Management Processes Include Data Collectinon Required Daily For Work , Using Knowledge to Create Value, Sharing and Exchanging Via Providing Knowledge For Others, and the Strategic Processes (SANGHANI,2009).

AT Tactical Level, the Framework Includes: Gaining: 1_ Searching Knowledge in Order to Solve the Problems, Make Decisions, and Innovate. 2_ Use: Combining the Content in New and Attractive Ways to Strengthen Innovation in the Organization. 3_ Learning: Learning From Experiences. 4_ Sharing and Exchanging : Employees` Motivation For Transferring Knowledge_ Based Learning.

At Strategic Level , The framework Includes: 1_ Evaluation: Evaluating Intellectual Capital. 2_ Creation and Stablization: Allocating Resources For Maintanance and Survival of Knowledge Base . 3_ Optimized Use :Keeping Assets that Have no

Can Be Very Helpful in advancing and Accelerating the Objectives of Knowledge Management Project. It Infrastructures Include Hardware, Software, Portals, and Knowledge Repositories are Main and Effective Factors in This regard(JAFARI ET al ,1385)

More Commercial Value to the Organization (Wang PP 14_17)

_ Libowitz Knowledge Management Model (2000).

_ Firestone and MCELROY's Model: This Model Has Been Presented in Three Layers Including Management Environment ,Knowledge Processing Environment , and Business Processing Environment, Each One With Outputs. Examples of these outputs are: A_ Knowledge Management Outputs: 1_ Knowledge Processing Strategies 2_ Policies and Knowledge Processing Laws.

3_ Knowledge Infrastructures B_ Knowledge Processing Outputs: 1_ Business Strategies 2_ Organizational Models 3_ Commodity Strategies 4_ Business Processes C_ Business Outputs:1_ Profitability 2_ Market Share 3_ Environmental Desirability 4_ Keeping the Customers (Firestone and MCELROY ,2005)

_ Knowledge Management Conceptual Model

***the Study Objectives**

1_ According to Experts and Respondents, are the Factors and Resources Studied Effective in Facilitating Knowledge Management ? 2_ is the correlation Between the factors and Resources Facilitating Knowledge Management Significant? 3_ Does the Model of the Factors and Resources Facilitating Knowledge Management Have a Good and Acceptible Fitting? 4_ Which Factor Among the factors and Resources Facilitating Knowledge Management is More Important Than Others?

5_ is There a Significant Difference in the Average Factors and Resources Facilitating Management in Terms of the Organizational Post, Experiences, or Background and Age)?

***The Study Method**

The Purpose of This Study is to Identify the Factors and Resources Facilitating Knowledge Management . Given that the is no Study of This Approach, this Study Can Lead to New Achievements in the Field of Management . However, the Study Results Can be Practically Exploited By Policy Makers and planners in Knowledge Management Fields in Crisis management Organization. Therefore, This Study is Applied in Terms of the Purpose of the Study , on the Other Band, the Method of This Study is the Type of Survey. In Survey Studies ,The Researchers Do Not Manipulate the Variables and They Describe the Trends Within Data With Detailed Explanations Rathe Than Presenting Them .These Types of Studies in Fact, are Conducted to Better understand the Nature of an Issue About Which Little Investigation Has Been Performed. Also, in Survey Studies, Researchers Collect Quantitative or

Numerical Data By Using QUESTIONAIRE or Interviews, and They Describe the Question Answering Trends and test the Questions or Hypotheses by the use of Statistical techniques(DANAEI FARD , AVANI, and AZAR, 1387:PP 147-150).

***Statistical Population and Sample Size**

Statistical Population of This Study Consists of the Country's (Iran) Crisis Management Organization and General Offices of the Provincial Crisis Management . in Order to Choose the Sample of the Study ,Since We Did Not Access and Failure in the Population Studied, so We used Morgan's Table to determine the Sample Number, and the

Sample Was selected Randomly. The Number of the Managers and Experts Associated and Familiar With the Subject in the Country's Crisis Management Organization and general Offices of the Provincial Crisis Management Was 95, and Based on Morgan's Table , the Sample Size Was Set at 76. So a Total of 77 Qustionaires Were Provided and Distributed Among the Individuals ,and They Were Collect After Completion.

***Analytical Model of the Study**

Analytical Model of the Study _Based on the Studies Performed_ is Presented in the Following Table:

*Table(1): Analytical Model of the Study:

Ray and Mebane (2003), JAFARI et al(2007), AKHAVAN(2010),MENTZAS,1995	Information System	It	Factors Facilitating Knowledge Management
AKHAVAN and JAFARI(2006),Wong (2005) Hung Et al (2005), EBGU(2004),Snyman ,R, and Kruger(2004), Moffett(1998),Wang (2002) ,Skyrme(1997) Admidon ,Bixler (2002), Hsieh and Chen (2000), Skyrme (2000)	IT Infrastructures		
Ray and Mebane(2003),Park and Kim (2005)	Knowledge Management Network		
Ray and Mebane (2003),JAFARI Et al (2007) , AKHAVAN (2010)	Hardware and Software	Strategy	
JAFARI Et al (2007), AKHAVAN(2010), Moffett(1998)	Knowledge Architecture Strategy		
AFRAZE (2003), Davenport and Prusak , L.(2000), Epler (2010) ES Peal (1999)	Knowledge Map Strategy		
AKHAVAN (2010),Zack. (2007)	Knowledge Management Strategy		
Drew, s. (1997), moffett(1998) ,Day and Wendler (1998) et al (2005)	Optimized Data Mining	Structure	
Davenport and Klahr (1998), Buckman, R.(1998), HASANALI (2002), Hsieh and Chen (2000), hung Et al (2005), AKHAVAN and JAFARI(2006), JAFARI Et al (2007)	Position of Knowledge Management Structure		
Davenport Et al(1998), Wong (2005), Skyrme(2000), Forcadell, J.f, Guadamillas (2002), Bixler (2002),Liebowitz(1999)	Organizational Infrastructures	Culture	
Davenport Et al(1998), Wong (2005), AKHAVAN and JAFARI(2006), TABIN(2003), hung(2005), SKYRME (2000), HASANALI(2002)	Training management Science to the Employees		
AKHAVAN (2010), KESHAVARZI(1386),ADEL and GERY SUN(2003)	Sharing Culture		
AKHAVAN and JAFARI (2006), JAFARI and AKHAVAN (2007), Hung(2005), MOFFET Et al (2003)	Team Work		
SKYRME and AMIDON (1997), Hsieh and Chen (2000), TOBIN(2003), EBGU(2004), SNYMAN, R. and KRUGER(2004), Wong (2005), AKHAVAN and JAFARI(2002)	Executive Coittment and Intellectual Support of Top Managers		

In The Present Study, Both Library Tools and Non_ Library Tools (such as QUESTIONAIRE) Were Used to Collect Data. The QUESTIONAIRE is Composed of Two Main Parts. General Questions Include Sex , Educational Status, Job Experience, Age , and the Organizational Post, and Specialized Questions Measuring the Aspects of the Study Subject Consist of 35 Questions.

***Validity and Reliability of the QUESTIONAIRE**

Validity: in This Study, Following the Vast Studies Performed and Consulting Various Professors, a QUESTIONAIRE Was Prepared and Then , in Order to Measure the Validity of the QUESTIONAIRE, After the QUESTIONAIRE Was confirmed By the Advisors and Supervisors, it Was Distributed Among 10 Participant Experts and Finally, After Including Their Points of Interest, the Final version of the QUESTIONAIRE obtained.

Reliability : in Order to investigate the validity and Reliability of the QUESTIONAIRE, SPPS Software Has Been Applied By Using Chronbach s Alfa, and the Resulting Alfa Coefficient is ./89, Which is more Than its acceptable Value, that is %70.

***Used Statistical Techniques**

In this Study For Data Analysis, Inferential Statistics is Used to test the hypotheses and Questions of the Study and Generalize the Results. In Addition, The Descriptive Statistics Has Been Applied to Interpret the Results of the Study's data By Using Statistical Indexes Such as Abundance Index. 1_ Pearson's Test to Determine the association Between the Dimensions Used and the Rate of Change in One Dimension Compared to Other Dimensions. 2_ Freedman's test is used For Ranking the Dimensions and How they Affect (Directly or Conversely) From the Respondents' Point of View. 3_ T Test Identifies the Significance

Rate of the Factors From the Respondents' Point of View. 4_ Factor Analysis: r^2 Correlation Coefficient is Use to Determine the Validity of the Model And the Effects of Dimensions on the Concept . Model's Fitting is Reviewed By using Lizrel Software.

***Data Analysis Method**

Data Abtained has Been Applied For Analysis by Using Techniques of the Inferential Statistics Such as Freedman , Average, Pearson's correlation, and Factor Analysis, and the Significance of each One Has Been Identified. In This Research, SPSS and LIZREL Software are Used For Classification and Analysis.

***Data Analysis**

First Question : According to the Experts and Respondents, are the Studied Factors Which Facilitate Knowledge Management Effective in Facilitating Knowledge Management?

To Test This Question, One_ Sample T Test is Used . Confidence Level of Significance is 95 Percent, and the First Sub Question is Acceptable When the Significance Value is Less Than $.5$, Other Wise, The Question is rejected and this Shows that There is Not a Significant relationship in %95 Confidence Level.

***Table (2) : Results of reviewing the Respondents' Expectations and Perceptions of the factors facilitating Knowledge Management (n=70)**

Significance	T statistic	Average Variance	Standard Deviation Error	Standard deviation	Average	0Factors and resources Facilitating Knowledge Management
0/000	5/704	0/37692	0/06608	0/55287	3/3769	IT
0/711	0/372	0/02679	0/07203	0/60264	3/0268	Strategy
0/187	1/322	0/11429	0/08577	0/7159	3/1143	Structure

Results of the Table Shows that at $.5$ confidence Level, IT and Organizational Culture in the First Question is Accepted, Since The Significance Value is less Than $.5$, and we Can Say that According to the Respondents, Among Factors facilitating Knowledge Management, It and Organizational Culture are Significant Factors and Their Values are More Than Average. However, in

Case of Two Other Factors, that is Strategy and Structure, the Significance Level is More Than $.5$, Which is Not Acceptible and Significant at %95.

Second Question: Is The Correlation Between Factors facilitating Knowledge Management Significant? To Investigate This Question We Can Use Pearson's Correlation test . the Results Are Presented in the Following

Table(3): Pearson's Correlation, Level of Relationship Between Factors Facilitating KnowledgeManagement

Structure	Strategy	IT	Facilitating Factors
		1	IT
	1	0/534	Strategy
1	0/600	0/589	Structure
0/452	0/652	0/498	Organizational Culture

Results of the Table Show That There is a Significant relationship Between all Factors Facilitating Management and a Change in each Factor Will change other Factors Facilitating Knowledge Management , Thus We Can Conclude That the second Question is Accepted.

Square divided by the degrees of freedom Should Be Less Than 3, Fitting Index of (GFI) and (AGFI) Should be More Than 0109, and Square Root of the Variance of the Approximation Error an appropriate Fitting.

Table (4): Fitting Indexes related to The analysis of Factors Facilitating Knowledge Management

Reported Value	Index
1225/93	Chi_ Square (degree of Freedom =556)
0/93	Fitting Index
0/91	Index of Fitting Adjustment
0/062	Square Root of the Variance of the Approximation Error

As you See in Table (4) , We Can Say That Since Square Root of the variance of the Approximation Error is less than 0/08 and the result of Chi_ Squire divided By the Degree of Freedom is Less than (3) and in addition, the Fitting Index of GFI and AGFI is more Than $.90$, The Model of Factors and resources Facilitating knowledge Management Has a Good Fitting. So it Can Be Said that The fitting of the Study Model is Acciptible, Because the Variance Analysis is Significant and Its Significance Level is Less than $.5$ _Fourth Question: Which factor Among factors Facilitating Knowledge Management is the most Important of All? To Test This question, We Can use Freedman Test and Describe The results as Follows:

Third Question: Does the model For Investigating factors Facilitating Knowledge management Have an appropriate and acceptable fitting? Factor analysis is Used to Test the Above Question . For This Purpose, the results of Chi_

Table (5): Results of ranking The factors and resources facilitating Management*

Average Rating	Factors facilitating knowledge Management
2/84	IT
1/81	Strategy
2/14	Structure
3/20	Organization Culture
Sig= .000 DF=3	

Considering the Data Obtained From freedman test We Can Say That Since The :

Significance is Less Than ./.5 , freedman Test Is Significant . Among Factors facilitating Knowledge Management, Organizational Culture Has the Most Importance in Improving and Facilitating Knowledge Management (According to the Respondants) In Addition , We Can Rank The Dimensions and Factors facilitating Knowledge Management in Sub Factors Shich Compose the main Factors as Follows.

Table(6): Results of Ranking the Factors and Resources Facilitating Management

Average Rating	Sub Factors	Main Factors
5/18	Information Systems	IT
7/54	IT Infrastructures	
11/66	Knowledge Management Network	
4/59	Hardware and Software	
6/94	Knowledge Architecture Strategy	Strategy
10/05	Knowledge Map Strategy	
8/02	Knowledge management Strategy	
7/98	Benchmarking Strategy	
7/83	Knowledge Management Structure position	Organizational Culture
6/58	Organizational Infrastructures	
8/14	Training Science and Knowledge Management	
5/89	Sharing Culture	
5/09	Team Work Executive Commitment and Intellectual Support	
9/52		
x ₂ =240/516 Sig= .000		DF=13

Considering The Data Obtained From freedman test We Can Say That Because the Significance is less Than ./.5, Freedman Test is Significant . Among Factors Facilitating knowledge management , Knowledge Management Network Has The Most Importance in Improving and facilitating Knowledge management (From The respondents Point of View).

Knowledge Management in Terms of Organizational Demographic index (educational Status, Organizational Post , Experiences Or background and Age)? Confidence level of the Significance of the Test is 95 Percent . the Fifth Question is Acceptable When the Significance Value is Less Than ./.5, Otherwise, the Question is Rejected and This Shows That There isnt` a Significant relationship at %95 Confidence level.

Fifth questions: Is There a Significant Difference in the Average Factors Facilitating

*Table (7): ANOVA Testing For Factors Facilitating Knowledge management Based on Demographic Indexes (N=70).

Significance	F_ Statistic	Average Squares	Degree of Freedom	Sum of the Squares		
0/024	4/618	0/811	3	2/112	Among Groups	educational Status
		0/341	67	98/342	Within Groups	
			70	100/454	Total	
0/314	1/294	0/194	2	0/591	Among groups	Organizational Post
		0/168	68	99/863	Within groups	
			70	100/454	Total	
0/493	1/115	0/172	4	0/285	Among groups	Experience Background or
		0/157	66	100/169	Within Groups	
			70	100/454	Total	
0/148	0/901	0/367	4	0/926	Among Groups	Age
		0/296	66	99/492	Within Groups	
			70	100/454	Total	

The Data Included in Table (7) Shows That the Attitude of the People Studied Based on

Demographic Index Which Include : Organizational Post, Experiences, and Age ,Towards Facilitating Knowledge Management in the Studied Organizations in Organizational, Experience, or Background and Age Do Not Have a

***Results of Data Analysis**

Results of the First Question Which is Divided into Four Sub Questions Show That According to The Respondents, Factors Facilitating Knowledge Management and Factors of IT and Organizational Culture are Significant For facilitating Knowledge Management , and From the Respondents' Point of View, There is No Significance in Factors of Strategy and Structure as Effective Factors in Facilitating Knowledge Management. In Other Words, the Average of IT and organizational Culture Factors_ Which are Among Factors Facilitating knowledge Management_ Have a Rating More Than Average and There is a Significance Between Expectations and Perceptions of the Respondents About Presenting These Dimensions. Results of Correlation Level Between the Dimensions Shows that there is a Positive and Significant Relationship Between the Dimensions of Correlation, and as One Of These Dimensions . in addition, Results of the Model's fitting Show That Because the Square Root of the Variance of the Approximation error is Less Than $.8$, and the Sum of Chi_Square Divided By the Degree of Freedom is Less Than 3 , and Also Fitting Indexes of GFI and AGFI are More Than $.90$, the Model Has a Good Fitting . Given What We Said Above, Due to Good Fitting of the Model We Can Say That Third Question is Acceptable , Results of The Significance of Each Factor and Resource Facilitating Knowledge Management According to the opinions of the Respondents Shows That Organizational Culture has the Most Significance ($3/20$) , and Strategy factors Has the Least Significance ($1/81$). Although Other

Significant Difference, because the Significance is More Than $.5$, and in The Case of ((Educational Status)), There is a Significant Difference Because the Significance is Less Than $.5$

Dimensions in the view of Respondent , are Closely associated, results of Investigating Non_sameness of the Importance of the Dimensions Show That There is a Significant Difference Between Them. Accordingly, We Can Say That Organizational Culture Factor is Most Effective in facilitating Knowledge Management and Strategy Factor Has The Least Impact on Facilitating Knowledge Management. Theoretical Framework Presented By This Study Shows a Comprehensive Model For Factors Facilitating Knowledge Management in the Country's Crisis management Organization. Since Few Studies Have Been Done In This Area , We Can Compare Findings of This Study With The Concepts Expanded By the Experts in this Area. For Example, Findings Of This Study Are Consistent With the concepts Suggested By LOUI Rey (2008) That organizational Culture Has a Key Role in Implementing Knowledge management. In General, Culture Should Create Value Via Creation ,Learning, and Sharing Knowledge Within The Organization In Order to Achieve The Benefits of the Organization (AMIR KHANI, 1389). Based on the Study ,Strategy Factors Has the Least Impact on Facilitating Knowledge Management, Which is Not Aligned With Zack (1999) Opinion Who Considers the Organizational Strategy as the Main Factors Affecting Knowledge Management. In addition, Special Factors Affecting Knowledge Management That Have Been identified By the American Productivity and Quality Center (APQC) (1999) ,Such as culture , technology and Strategy, Are Stressed in This Study.

1/8/2013